

# REPORT DOCUMENTATION PAGE

AFRL-SR-AR-TR-03-

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|---|--|---|--|--|
| 1. AGENCY USE ONLY (Leave Blank)  |  | 2. REPORT DATE<br>September 16, 2003                    | 3. REPORT TYPE AND DATES COVERED<br>Final Technical, 05/01/03 - 12/31/03 |  |
| 4. TITLE AND SUBTITLE<br>Student Travel Support for ICOPS 2003  |  |   | 5. FUNDING NUMBERS<br>F49620-03-1-0190                                   |  |
| 6. AUTHORS<br>Edi Schamiloglu   |  |   |  |  |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br>University of New Mexico<br>Department of Electrical and Computer Engineering<br>Albuquerque, NM 87131-1356   |  |   | 8. PERFORMING ORGANIZATION REPORT NUMBER                                 |  |
| 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)<br>AFOSR/NE<br>4015 Wilson Blvd, Room 713<br>Arlington, VA 22203-1954   |  |   | 10. SPONSORING / MONITORING AGENCY REPORT NUMBER                         |  |
| 11. SUPPLEMENTARY NOTES   |  |   |  |  |
| 12a. DISTRIBUTION / AVAILABILITY STATEMENT<br>Unlimited   |  |   | 12b. DISTRIBUTION CODE<br>AFOSR/NE                                       |  |
| <b>DISTRIBUTION STATEMENT A</b><br>Approved for Public Release<br>Distribution Unlimited  |  |   |  |  |
| 13. ABSTRACT (Maximum 200 words)<br>Student travel awards of \$1,000 each were presented to three students registered in US universities, working in High Power Microwaves, and presenting papers at the 2003 ICOPS in Jeju, Korea. |  |   |  |  |
| 14. SUBJECT TERMS<br>High power microwaves  |  |   | 15. NUMBER OF PAGES<br>6   |  |
|   |  |   | 16. PRICE CODE   |  |
| 17. SECURITY CLASSIFICATION OF REPORT<br>Unclassified   | 18. SECURITY CLASSIFICATION OF THIS PAGE<br>Unclassified | 19. SECURITY CLASSIFICATION OF ABSTRACT<br>Unclassified | 20. LIMITATION OF ABSTRACT<br>None                                       |  |

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)  
Prescribed by ANSI Std. Z39-1  
298-102

20031006 059



The University of New Mexico

# **The University of New Mexico**

**Department of Electrical & Computer Engineering**

**“Student Travel Support for ICOPS 2003”**

## **Final Technical Report 1 May 2003 – 31 December 2003**

**16 September 2003**

**Submitted by:**

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## I. INTRODUCTION

The 30<sup>th</sup> IEEE International Conference on Plasma Science (ICOPS) was held June 2-5 in Jeju, Korea. The purpose of this conference was to bring together researchers and scientists from the plasma science community in order to foster enhanced interactions in the field. The conference is sponsored by the Plasma Science and Applications Committee of the IEEE Nuclear and Plasma Sciences Society. The venue for the 30<sup>th</sup> ICOPS was Korea, the first time this conference was held outside of North America. This presented a unique opportunity for significant technical interactions between researchers from the US and the broader Asian plasma science community.

This AFOSR-sponsored travel grant facilitated the participation of three graduate students registered in US universities and working in the field of High Power Microwaves. This report describes the awardees and their papers.

## II. OUTCOME

The awards committee reviewed the numerous applicants and selected the following finalists:

### Awardees of HPM/ICOPS Travel Grants

Ms. Chia-Chan Chang  
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Engineering  
University of California  
One Shields Avenue  
Davis, CA 95616  
email: ycchang@ucdavis.edu  
IEEE No.: 41278330  
Citizenship: Taiwan

Ms. Eunmi Choi  
Plasma Science and Fusion center  
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Mr. Felipe Iza  
440 Dana - ECE Department  
Northeastern University  
360 Huntington Ave  
Boston, MA 02115  
fiza@ece.neu.edu  
IEEE No.: T11502691  
Soc. Sec. No.: 030-84-2366  
Citizenship: Spain

These finalists presented the following papers at the conference:

C.C. Chang, C.W. Domier, N.C. Luhmann, Jr., H. Park, and T. Munsat, "A Millimeter Wave Beam Shaping Phased Antenna Array Proposed for Imaging Reflectometry," paper 2PB11 presented at 2003 IEEE International Conference on Plasma Science (Jeju, Korea, 2003), p. 238.

E. Choi, J.P. Anderson, M.A. Shapiro, and R.J. Temkin, "A 1.5 MW, 110 GHz High Efficiency Gyrotron for Tokamak Plasma Heating," paper 7PA18 presented at 2003 IEEE International Conference on Plasma Science (Jeju, Korea, 2003), p. 473.

F. Iza and J. Hopwood, "Low-Power  $\mu$ Wave Plasma Source for Microsystems," paper 7A06 presented at 2003 IEEE International Conference on Plasma Science (Jeju, Korea, 2003), p. 438.

Scholarship checks were distributed at the conference and recipients were congratulated.

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| APPENDIX |
|----------|

**Report on ICOPS 2003 Student Travel Grant to PSAC ExCom  
Y. Y. Lau (Chair), R. Fedosejevs, E. Schamiloglu**

**A. Regular Student Travel Grant + Phelps Award**

**Budget:** \$3,000 + \$1,000 (Phelps Award) = \$4,000

**Number of Awards:** 5, \$800 each

[USA(2), Canada(1), Japan(1), Russia(1)]

**[No quota for either domestic or foreign students.]**

**B. HPM Award\***

**Budget\*\*:** \$3,000

**Number of Award:** 3, \$1,000 each

[UC Davis (1), MIT (1), Northeastern U (1)]

***\*Restricted to students of US and UK universities working on high power microwaves. No restriction on applicant's citizenship.***

***\*\*Funded by AFOSR and administered by U of New Mexico, from proceeds of sales of the book, High-Power Microwave Sources and Technology, Eds.: Robert J. Barker and Edl Schamiloglu, IEEE Press (2001).***